# What is the level of the *ITEC* course?

Part 1 of *ITEC* starts off with the basics but rapidly becomes more complex. The next few parts take you through such areas as: operation of logic gates, binary codes and truth tables • how transistors work as switches and as amplifiers • the structure of semiconductor materials and devices • address, control and data busses • how computer memories are organized and accessed...

Presented in a weekly format, *ITEC* is like having evening classes in your own home. Each part gives you further chapters from the major subject sections, with everything fully explained. It's planned to help your knowledge grow progressively so that, as new ideas are introduced, you understand the principles on which they are based.
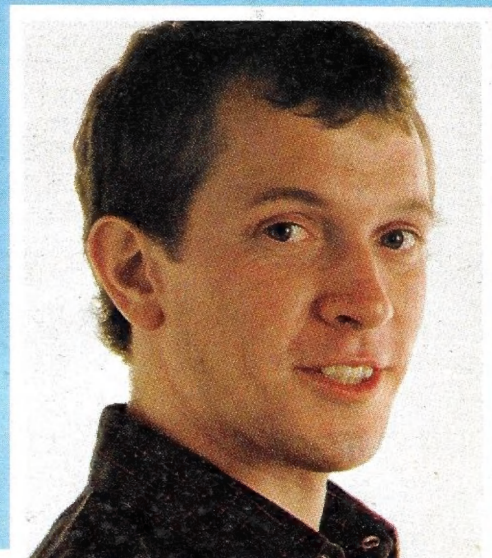
Who is *ITEC* for?

From the young student battling with solid state electronics or computer science, to the enquiring adult who did his learning in the pre-transistor days, *ITEC* fulfils a need for all.

Whether you are a trainee wanting to get ahead, someone who is interested in electronics and computers as a hobby, or you just want to understand the technology that's changing your everyday life — *ITEC* has the facts.

These are the kinds of questions that *ITEC* will answer:

A **microprocessor** carries out thousands of operations every second. How does it know what to do — and when? Understand the precise operation of the **program counter, instruction decoder, ALU** and other system components.

Top-down design is today's method for writing programs. Why has this become the preferred system, and what does it involve?

Boolean algebra is fundamental to the working of every computer. Learn how it is used in the design of **logic circuits**.

Fibre optics will revolutionise the telephone exchange of the future, but exactly how does the technology work?

Everyone knows about **Basic** but why do experts use **Fortran, Pascal** or other languages?

TTL, CMOS and **I²L** are some of the important building blocks of digital systems. What do the terms mean and how do these circuits operate?